fore, of seeing the increase from a small beginning, shown in the above table, lead to important results.

Although the lottery appears to be a permanent resource of the Italian treasury, it is to be noted that it is recognized legally as only a provisional arrangement. The Act of 1863 first forbids public lotteries in general terms, and then declares that "the *giuoco del lotto* is provisionally maintained for the benefit of the State"; and the same phrase is used in an Act of 1881. The existence of the lottery has been deplored, and it has been treated as an immoral resource by one statesman after another; but, in the poverty of Italy, no minister has yet found himself strong enough financially to sacrifice the thirty million francs net which remain after the payment of expenses and of about forty millions in prizes.

A French translation of the Act of 1880, to which Signor Rosmini refers, and of some other regulations on the same subject, may be found in the *Annuaire de Législation Comparée* for 1880, p. 320.

MARSHALL'S THEORY OF VALUE AND DISTRIBUTION.

Now that Mr. Marshall fills the chair at Cambridge vacated by the death of Professor Fawcett, he may properly be considered, for that and other reasons, the foremost economist of the day in England. It is understood that, while still living at Bristol, he had been making special studies in the subject of value. In his volume entitled *Economics of Industry*, he has laid down a fundamental law of value, in the nature of an improvement on the work of Mr. Cairnes. It is, therefore, worth considering whether Mr. Marshall has really advanced our knowledge of the principles regulating value, or not. It seems quite possible that he has not.

After defining value in exchange in the usual way, he gives to the term, cost of production, the meaning contended for by Mr. Cairnes, and defines it as consisting of "the efforts and abstinences required for producing" a commodity (p. 73). In discussing the value of commodities capable of unlimited increase, however, he disagrees with Mr. Cairnes, and denies to cost of production the character of a regulator of value where

competition is free. Instead, he sets up a new conception, termed "expenses of production," by the side of cost of production. By way of illustration, he points out that a carpenter in making a box undergoes certain sacrifices, and in the following words explains what is meant by expenses of production: —

> The carpenter, however, in deciding whether to make the box or not would not care to examine all these efforts and sacrifices : he would decide in a much easier way. He would calculate what it is proposed to call its expenses of production. He would, as we have seen, want to know what prices the various efforts and sacrifices in question would command in the open market; he would want to know what price he would have to pay for his material, what wages he could obtain for his own labor, what was the rate of interest at which he could borrow such capital as he wanted, and so on. These various sums of money, when taken together, may be called the *expenses of production* of the box. (p. 72.)

The value of a commodity is then declared to be regulated, not by cost of production, but by expenses of production, as may be seen in the final summing up of the law of normal value :

> The normal value of a thing in any market, or that value which would on the average be brought about by the undisturbed action of free competition among its producers, is equal to its expenses of production there. Whenever the value is below this level, forces are brought into play which tend to raise it ; whenever it is above this level, forces are brought into play which tend to lower it. The value of a commodity is in equilibrium and has no tendency either to rise or to fall when the amount produced can just be sold at a price equal to its expenses of production. (p. 77.)

The error in these statements seems to me to be serious and fundamental ; so much so, in fact, that a doubt is raised whether the author's meaning has been correctly understood. It is certainly a serious error to define value in terms of value; but this is what Mr. Marshall has seemingly done, with the consequence of arriving, in his law of normal value, at nothing more than identical statements. In the illustration of the carpenter and his box, it is stated that expenses of production are made up of the *prices* paid for the various efforts and sacrifices involved in production. Now, of course, price is itself only an expression of value ; but in so fundamental

a law as that of normal value he goes on to say that normal value depends upon the *prices* of certain things,— the prices paid for the sacrifices of laborer and capitalist undergone in the production.

Mr. Marshall, however, finds that "this law is not complete, because it takes no account of the fact that the expenses of production are not fixed, but depend upon the *amount produced.*" (p. 78.) One hopes that the author will now extricate himself from the difficulty; but he completes the law by the following statement: —

> An increase of demand increases the amount produced, and this alters the expenses of production; so that value depends partly on demand, because normal value is equal to normal expenses of production, and demand is one of the determining causes of these expenses. The law of normal value requires then to be supplemented by the statement that: —
>
> The normal supply of a commodity is such that its normal expenses of production equal the price which will call forth a demand for this amount; and the price so determined is the normal price. (p. 93.)

The context seems to show that, in the meaning of the author, demand has an effect on expenses of production in some such way, for example, as would result from large production. When large quantities of commodities are produced under one management, the expenses of production may fall. But, of course, this modification does not touch the real difficulty in Mr. Marshall's statement of normal value.

If value depends upon expenses of production, and if expenses of production depend upon the "prices of the various efforts and sacrifices," the question naturally arises in the mind, What governs the prices to be paid for these efforts and sacrifices? The payment, for instance, of one effort is the wages of labor; and this implies some theory as to what regulates wages, or a knowledge of the principles of distribution. But, in Mr. Marshall's exposition, the subject of value is treated before that of distribution. So that, when studying value, there are no means yet offered of ascertaining the prices to be paid for the sacrifices of production.

Still, passing over this defect in the order of the exposition, the difficulty in regard to the law of normal value becomes even more formidable when we take hold of the author's

theory of distribution. The problem of distribution is clearly stated as follows: —

In the first book, we have inquired into the *production* of wealth, and have seen how the real net annual income of the country is determined. We have seen how that share of it which the landlord can claim as rent is fixed by definite economic laws; and, as the share which the State assumes to itself as taxes depends on causes which cannot be examined here, we must take it for granted. We may then regard the amount which remains, after deducting rent and taxes from the net annual income of the country, as a given fund, and call it the Wages-and-Profit Fund. The problem of *distribution*, with which we shall be chiefly occupied during the rest of the present volume, consists of an inquiry into the way in which this fund is divided up. (p. 95.)

Omitting all discussion now as to the respective shares assigned to labor and capital from this fund, it will be sufficient to call attention to the very elementary truth that this wages-and-profit fund is, of course, made up of wealth, or articles having value; and that the amount of the fund changes accordingly as the articles of which it is composed rise or fall in value. The demand for the products of any industry, or group of industries, for example, may become stronger: the value of these products may be accordingly raised, and so the wages-and-profit fund may be larger. This reasoning is in accordance with Mr. Marshall's general teaching, and with the facts of daily experience. When, for instance, an extension of railway building causes a stronger demand for iron, the value, or price, of iron, rises, and wages and profits in that industry rise; for, inasmuch as the products bear a higher value, the wages-and-profit fund will be larger. Wages and profits, then, must depend for their amounts upon the value of the wages-and-profits fund.

Here, however, we meet with a serious difficulty. In Mr. Marshall's theory, value conforms to expenses of production; but, on his own showing, expenses of production are ultimately resolvable into wages and profits.* What determines the

* "We have seen that the expenses of production of a commodity may be reckoned in such a way that rent does not enter into them. The remaining expenses may be classed as wages, profits, the expense of raw material, and other circulating capital, the wear and tear of fixed capital, and taxes. . . . But all these may, as a rule, be classed as wages and profits." (B. II., chap. vi., p. 94.)

value of the wages-and-profit fund, according to the author? Evidently, it is determined according to his law of normal value by the expenses of production, or, in other words, by wages and profits. We are logically led, therefore, to the proposition that the value of the "Wages-and-Profit Fund" depends upon the amounts paid as wages and profits! The obvious identical proposition is that the value of the fund to be divided conforms to the sum of the parts into which it is divided.

The cardinal difficulty, one must believe, lies in the attempt to set up the expenses of production as a regulator of value. Cost of production the author declares to be unfit to serve as a regulator of value. When it is stated by other writers that "value tends to equal cost of production," Mr. Marshall says:

This, of course, does not mean that the value of a thing tends to equal what is called, in this book, its cost of production; *i.e.*, the efforts and abstinences that have been required for making it. What is meant is that the value of the thing tends to equal the sum of those values which measure the efforts and abstinences required for making it,—that is, cost of production is used to denote what we have expressed by the term "expenses of production"; for an exchange value, or price, though it may be equal to a set of exchange values or prices, cannot be equal to a set of things unlike in kind to it. There cannot be any direct comparison between one set of efforts and abstinences and another. We cannot subtract the labor of a carpenter in making a box from the labor of a watchmaker in making a watch. (p. 97.)

This quotation fully develops the position of the author in his attempt to dispense with cost of production as a regulator of value; and it also shows distinctly enough a misunderstanding of the grounds on which it has ever been proposed to assert that value depends upon cost of production. *Where competition is free*, two articles, in whose production the efforts and sacrifices are equal, will exchange for each other; and, other things being the same, the efforts and sacrifices will be rewarded by the same payments. So that, where the costs of production are the same, it is also true that the expenses of production, or the sums paid for the sacrifices, will be equal. And, in such a case, it is found to be true that the commodities might exchange for each other in proportion to

their expenses of production. But, where *competition is not free*, as in the example of the carpenter and the watchmaker, exchange value is not governed by cost of production, but, as Mr. Cairnes has clearly shown, by reciprocal demand. Under these conditions, if the value of one article relatively to another is out of proportion to the relative sacrifices incurred in their production, it may happen that the sacrifices in producing the one article will be more highly rewarded than the sacrifices in producing the other. If this be true, wages and profits, or the "expenses of production," are high, because of the influence of reciprocal demand.

J. LAURENCE LAUGHLIN.

SOME OBJECTIONS TO PROFIT-SHARING.

[The following pages are an extract from a Dissertation for which the author received a Bowdoin Prize in Harvard College in 1885. The author's consent to the present publication was asked, in view of the fact that his essay represents a side of the question as to Profit-sharing not commonly set before the public.]

The highest claims have been advanced by the advocates of industrial partnership for its possibilities in effecting a solution of the labor problem. The capitalist, it is said, may justly expect to see introduced into his relations with his work people stability and peace, a strong corporate spirit, and a feeling of solidarity of interests which shall secure real co-operation from them instead of perfunctory service, and put an end to that class feeling which bands workmen together as in a league against their employers. The workman, too, will receive, besides his increased share, indirect benefits of no little importance. The extra profit or bonus makes a valuable incentive to saving, and encourages a more intelligent spirit of toil and a better appreciation of the economic conditions surrounding business and industrial life. In short, through the beneficent workings of the system, the demands of labor will be met, and the disputes between labor and capital permanently ended. The influence of this change in the industrial conditions is expected to be so great as to